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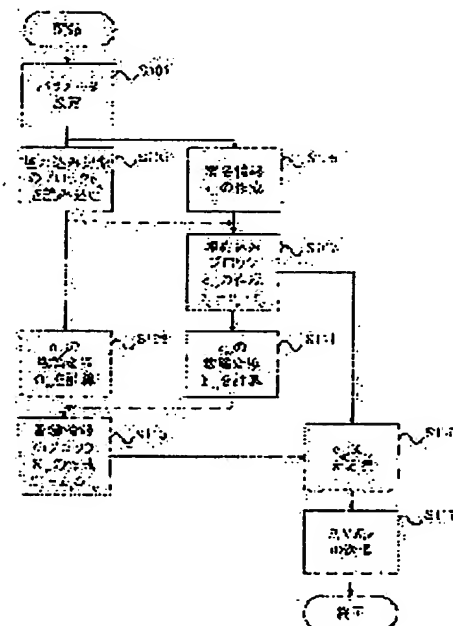
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(54) FALSIFICATION POSITION DETECTION METHOD, FALSIFICATION POSITION DETECTION PROGRAM, AND RECORD MEDIUM RECORDING THE PROGRAM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a falsification position detection method using a weak electronic watermark due to number theoretical transform, and to provide a falsification correction method.

SOLUTION: A processing section obtains main key information P for the number theoretical transform and a root α of an order N using the orders N and the P as a modulus based on P (S101). The processing section inputs each pixel value o_{ij} of an original image block oxy (S103). The processing section creates signature information sxy for embedding in each pixel value oxy based on the P (S105). The processing section obtains an embedded image block exy where the signature information is embedded by obtaining the difference between oxy and sxy (S107). The processing section obtains a number theoretical transform coefficient Exy of exy and that Oxy of the oxy (S109, S111). The processing section generates a block Kxy of subkey information corresponding to each block (S113). The processing section processes each step to the original pixel block oxy , obtains exy and Ksy for storing at a storage section (S115), and transmits exy , P, N, and Kxy (S117).



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